

NEW DISTRIBUTIONAL DATA AND FIRST RECORD OF GREGARIOUS BEHAVIOR FOR *AEGITHUS MELASPIS* (COLEOPTERA: EROTYLIDAE) FROM MÉXICO¹

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ABSTRACT: New distributional records and observations of the gregarious behavior for *Aegithus melaspis* from México are provided.

Erotylid beetles are primarily mycophagous, mostly feeding on macro-basidiomycetes, although the species differ in particular requirements of fungal structures: some are surface grazers while others feed on gills or context (Skelley *et al.* 1991).

In México, the Erotylidae comprise about 100 species (Alvarenga 1994; Johnson 1967, Skelley 1998). *Aegithus* Fabricius is an American genus with 76 species, of which 12 have been recorded from México (Alvarenga 1994). In his treatment of the Erotylidae in the *Biologia Centrali Americana*, Gorham (1888) divided the genus into two groups: A, with smooth, not striate, elytra, and B, with gemellate-striate elytra.

Aegithus melaspis Gorham belongs to Group A. It is easily recognized within that group by its uniform dull brick-red color, and its moderately convex, smooth body, which is a little shiny ventrally. The antennae are mostly black, with the two basal antennomeres red; the tibiae, tarsi and scutellum are black. The male has a "punctiform setigerous dot" on the middle of the first visible abdominal sternite. This structure is similar to the "median pubescent fovea" present in some male ciids (Lawrence 1971).

Presently *A. melaspis* is known from México [Chilpancingo (Guerrero), Presidio and Orizaba (Veracruz), Tehuantepec (Oaxaca)], Guatemala (San Gerónimo), and Nicaragua (Chontales). Here we provide new distributional data and field notes for *A. melaspis*.

Material examined: GUERRERO: Mochitlán, Acahuizotla, tropical subdeciduous forest (TSDf), 650m, 8.IV.1986, L. Delgado, under bark (1 Male, 6 Female); JALISCO: Casimiro Castillo, TSDf, 390m, 25.II.1994, J.L. Navarrete, *ex log* with mycelia (2M, 2F); Puerto Vallarta, Ejido Las Palmas, 20°49'N, 105°04'W, TSDf, 1.VIII.1998, S. Guerrero and S. Zalapa, *ex fungus*

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(1M, 1F) (new state record that extend the distribution of this species approximately 1,050 km NW from Chilpancingo); MICHOACÁN: Gabriel Zamora, tropical deciduous forest, 920m, 9.VI.1998, R. Novelo, on trunk of *Ficus petiolaris* H.B.K. tree (106M, 61F) (new state record). Specimens are deposited in the entomological collections of the Centro de Estudios en Zoología, Universidad de Guadalajara (CZUG), Instituto de Biología, Universidad Nacional Autónoma de México (IBUNAM) and Instituto de Ecología, A.C. (IEXA).

The specimens from Michoacán were collected around 1100 h during a warm sunny day. Hundreds of imagoes were observed on a *Ficus petiolaris* tree («amate amarillo»); individuals were located mainly from the basal portion of the tree trunk to approximately two meters high, completely covering its circumference. Some of the beetles were copulating while others remained crowded in several irregular large masses (Fig. 1). Apparently, the individuals were moving from the tree's base to the branches since the greatest abundance was observed at the lower part of the trunk. Furthermore, the ground around the tree was covered with a thick layer of decaying leaves well wetted by the previous night's heavy rain, the first after a long period of drought. Individuals apparently came out from this layer or maybe from the rock crevices in which the tree roots were attached.

There is little information available on the life cycles of the Erotylidae; however, some data indicate that larval and pupal stages are rather brief, while imagoes are longer-lived, becoming quiescent during unfavorable seasons (Skelley et al. 1991). In this context, the first heavy rain we observed probably was the trigger to break off such quiescence and to start the reproductive behavior of adults, which emerged in synchrony from the ground. This synchronous pattern enables rapid mate localization (Goodrich and Skelley 1991). Furthermore, the gregarious behavior plus the aposematic coloration of adults of this species could reduce the risks of predation during reproductive activity [for other examples in mycophagous species see Leschen (1994)], which apparently is very brief in *A. melaspis*, since after a period of 2.5 hours there was no evidence of any individuals. It is not known whether they flew away looking for a suitable place to oviposit or returned to the leaf litter.

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Figure 1. Accumulations of *Aegithus melaspis* adults on *Ficus petiolaris* (↑ Top).

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BOOK REVIEW

AN AFFAIR WITH AFRICA, Alzada C. Kistner. 1998. Island Press. Washington, DC. 246 pp. \$24.95 (hardcover).

Can an entomological book be a thriller? Alzada Kistner, a trained biologist, demonstrates that the answer can be yes. This book is a superb combination of biology, history, culture, adventure, and at times sheer terror, all the while showing the love of an entomologist for her subject and science. It provides an insight into how the minds of dedicated entomologists work and is an inspiration for those not able to live the lives of the author and her family.

The "Affair" starts in 1960 in the heart of Belgian Congo just three weeks before its independence and progresses for 13 years through troubled political times in Africa as the continent is changing from colonial to independent rule. The central focus of the book is the entomology of myrmecophiles and termitophiles, little staphylinid beetle "guests" living in ant and termite colonies. Unlike most scholarly entomological treatises, the other elements of life – the oppressive heat and mosquitoes, the risk of life to lions, elephants, green mambas, violent mobs, and dictators, and the wonderful people who helped them throughout their investigations – are not omitted. Woven throughout the book are facts and insights into the biology of the beetles, ants and termites that are being studied. Kistner provides a pictorial and historical account of biology in colonial Africa in a time that has now disappeared.

Although this book defies simple classification, it does work its magic on the reader. It is written in a positive, cheerful style that reaches out and grabs the reader and reveals the author's love of insects, people and science. Every so often a book comes along that serves to inspire. This is one of those rare books.

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Editor's P.S. Although a century later, and the searching was for infinitely smaller organisms, this is a fascinating epic of biological exploration in the tradition of earlier 19th Century explorers. The book is equally as fascinating for the first hand experiences of the Kistners through the changing times in Africa during the second half of the 20th Century as for their experiences collecting myrmecophiles and termitophiles. This is highly recommended, pleasurable, and informative reading.

H.P.B.